

National Cannery Association

WASHINGTON, D. C.

Information
Letter



For N. C. A.
Members

Membership Letter No. 57.

March 29, 1924.

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SUPPLEMENT - Copy of Letter Addressed to Hon. Henry C. Wallace,
Secretary of Agriculture, by the Secretary of the
National Cannery Association, on the Subject of
Home Canning.

N.C.A. Sections to Meet with Western Cannery at Chicago.

In connection with the spring meeting of the Western Cannery Association, there will be important meetings of several of the Sections of the National Cannery Association. Those scheduled to date are the Ketchup Section, Tuesday morning, April 22, Wade L. Street, Chairman; the Pea Section, Tuesday afternoon, April 22, F.A. Stare, Chairman; and the Corn Section, Wednesday morning, April 23, E.B. Cosgrove, Chairman. All sessions will take place at the Hotel Sherman.

Of interest to members in connection with the Western Cannery meeting will be the fact that President Clark will address the General Session on Wednesday afternoon.

A Letter to the Secretary of Agriculture on Home Canning.

As a supplement to this week's Membership Letter, there is attached a copy of a letter addressed to Hon. Henry C. Wallace, Secretary of Agriculture, by the Secretary of the National Cannery Association, on the subject of home canning. Because of its great importance, every member of the Association is earnestly advised to read it at the earliest possible time.

A Case for Mr. Volstead!

The Association has just completed an investigation of a newspaper report of a man in New York City who was made ill by eating canned salmon. In the course of the investigation, a signed statement was secured from the physician indicating that the trouble was alcoholism and that it was not a case of food poisoning at all.

The matter has been taken up with the newspaper for the purpose of securing a correction.

They Even Drag In Scarlet Fever.

Referring to a case of alleged food poisoning, we have the following letter from a valued member:

"I suggest that you refer, in a few words, to this case where canned foods were even blamed for scarlet fever.

"While I appreciate there is something in the 'Good Book' about the sins of the fathers being visited upon the children unto the third and fourth generation, it is certainly hard lines for a can of asparagus to be blamed for a virulent disease like scarlet fever, a germ disease. If any germ can live in the cook that canned asparagus gets, all I can say is that it is a pretty lively germ."

Labeling of Mixed Vegetables for Salad.

The following quotation from a letter just received from the Bureau of Chemistry is of interest.

"Since the designation 'salad' ordinarily conveys the impression that some sort of dressing is present, particularly when vegetables are the chief ingredient, mixtures of vegetables for making salads would not be properly labeled as 'vegetable salad'. There will be no objection, however, to the use of labels bearing the phrases 'Vegetables for Salad', 'Salad Vegetables', and 'Mixed Vegetables', if the products are otherwise in harmony with the requirements of the law."

N.C.A. Representative Addresses Bakers Supply Houses Association.

H.M.Loomis, of the National Cannery Association, addressed the National Association of Bakers Supply Houses in Washington, on March 21, on the subject of Canned Foods Specifications. Those present manifested great interest in the subject, and a lively discussion followed the address.

Proposed Legislation.

Representative Griffin has just introduced into the House Joint Resolution 223, proposing an amendment to the Constitution giving Congress power to prohibit employment of persons under sixteen years of age in manufacturing establishments, including canneries. The resolution has been referred to the Committee on the Judiciary.

Representative Griffin has also introduced a bill, H.R. 8048, providing for the levying of an excise or surtax on unimproved lands.

Trade Commission Cites Concerns for Misleading Statements.

Two recent citations for unfair practices issued by the Federal Trade Commission are of general interest.

The Rice Milling Company was charged with misleading the public by using the word "milling" in its name and advertising, when in fact they are not millers of rice but simply distributors.

A manufacturer of household furnishings issued misleading statements to the effect that they manufactured these furnishings and sold them direct to the consumer, although in fact, this concern was simply a distributor of such furnishings manufactured by other firms.

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March 29, 1924.

Supplement.

COPY OF LETTER ADDRESSED TO HON. HENRY C. WALLACE,
SECRETARY OF AGRICULTURE, BY THE SECRETARY OF THE
NATIONAL CANNERS ASSOCIATION, ON THE SUBJECT OF
HOME CANNING.

March 18, 1924.

The Honorable,
The Secretary of Agriculture,
Washington, D.C.

Sir:

Undoubtedly your attention has been called to the very serious outbreak of botulism which occurred in Albany, Oregon, recently, and which resulted in the death of twelve persons. This outbreak was fully investigated by representatives of the Oregon Board of Health and the United States Public Health Service and it has been established beyond question that the food product responsible for this outbreak was home-canned string beans, said to have been prepared by the so-called cold-pack method. Copy of the report of the investigation of this outbreak is enclosed.

In 1919 there occurred a number of startling outbreaks of botulism due to commercially packed ripe olives and minced olives. The effect of these outbreaks was to practically destroy the market for ripe olives. The industry was practically ruined and has just lately begun to recover.

The canning industry, realizing the gravity of the situation, immediately took steps to extend the food-poisoning research work, which had already been going on at Harvard Medical School under the direction of Dr. Rosenau for two years, to include a special study of botulism. This investigation was undertaken by a cooperative arrangement between the U.S. Public Health Service, the California State Board of Health, and California and Stanford Universities.

From April 1920 to February 1922, there occurred seven outbreaks of botulism due to commercially canned spinach, put up in canneries on the Pacific Coast. The work of the Botulinus Commission, J.C. Geiger, E.C. Dickson, and K.F. Meyer, therefore included a special study of the methods of preparation and canning of spinach.

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Representatives of the Western District of the Bureau of Chemistry of your Department also gave very valuable assistance in the prosecution of this research work, which extended over a period of about two years and is summarized in Bulletin No. 127 of the U.S. Public Health Service, "The Epidemiology of Botulism." Your special attention is called to Section 3, Part VIII of this bulletin on pages 101-107 inclusive, "The Economic Importance of Spoilage due to B. Botulinus in Home and Commercially Canned Food."

As a result of the Commission's work, the California State Board of Health issued rules and regulations governing the preparation and canning of spinach and olives, and these regulations, if enforced, will prevent further danger from that source. As a matter of fact, the only outbreak of botulism attributable to commercially canned foods since March 1st, 1922, is one just reported in California due to ripe olives. Whether or not these olives were packed in accordance with the regulations of the State Board of Health, we have not yet been advised. Nevertheless this outbreak only serves to emphasize the great value and importance of the research work that has been done.

FOODS RESPONSIBLE FOR OUTBREAKS FROM COMMERCIALY CANNED FOODS

	1919	1920	1921	1922	1923	1924	Total number of outbreaks.
Ripe olives	3	5	1			1	10
Spinach		2	4	2			8
Beets	1	1*					2
Milk		1*					1
Ham		1*					1
Sausage	1*						1

*Not proven.

It will be noted that of the 23 outbreaks from botulism from commercially canned foods shown in the above table, 18 have been attributed to two foods, ripe olives and spinach. Four of the others have not been proven, although from an epidemiological standpoint commercially canned food has been assigned as the cause. The other outbreak has been attributed to commercially canned beets.

In order to give you an idea of the total amount of commercially canned foods packed in this country, we quote the following figures from the U.S. Census for 1919 and 1921, which are the latest available.

	1919 No. of Cases	1921 No. of Cases
Vegetables	57,745,432	38,186,041
Fruits	26,434,133	17,779,170
Sea foods	14,920,609	7,496,723
Milk	43,617,633	36,563,166
Meats and sausage	17,523,606 *
Soups	5,844,821	6,861,850
	<hr/> 166,086,234	<hr/> 106,886,950

*In 1921, canned meats and sausage were reported only in pounds, viz., 74,586,000.

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The figures for 1921 quoted above reflect the depressed industrial conditions during that year. As a case of canned foods will average at least 2+ cans, you will see that as compared with the total commercial pack of canned foods, the number of outbreaks of botulism is exceedingly small.

In collaboration with the Pacific Coast investigators, the Research Laboratory of this Association began to work out the practical application of the findings of the Botulinus Commission to commercial canning all over the country. Our laboratory has issued a number of publications, copies of which are enclosed, giving safe sterilizing processes for various vegetables, and a special bulletin, No. 89-A, "What Every Canner Should Know", which outlined the results of the Botulinus investigations and showed what canners must do to guard against the occurrence of further outbreaks of botulism from commercially canned foods. This bulletin was given widespread distribution, not only to all canners, but also to food and health officials. Not only by means of these publications, but also by correspondence and in addresses, this Association has endeavored to show canners the great importance of using processes in their canneries which are entirely safe and it intends to continue this work.

Further research work on food poisoning and botulism, with particular reference to the bacteriology of the subject, has been going on at Chicago University for the past two years under the direction of Prof. E.O. Jordan in cooperation with Dr. Geiger of the U.S. Public Health Service. This work is entirely and directly under the control of Prof. Jordan.

While the botulinus organism is a soil-borne organism, particularly prevalent in certain localities, its presence has been demonstrated in samples of soil and plant materials taken in many places all over this country, as well as in foreign countries.

The following table shows the number of outbreaks of botulism occurring from 1919 to date, due to commercially canned foods and those canned in the home. These figures are very instructive.

REPORTED OUTBREAKS OF BOTULISM, 1919-1924, INCLUSIVE.

	<u>1919</u>	<u>1920</u>	<u>1921</u>	<u>1922 and 1923</u>	<u>1924</u> (To date).
Home canned foods	5	4	7	26	3
Commercially canned foods	5	7	8	2	1

Figures from 1919-1921, inclusive, Public Health Service Bulletin 127 (Table 9); 1922-1924, reported by Geiger and others.

While the National Canners Association is fully alive to the seriousness of outbreaks of botulism from the standpoint of public health, and the history of the work which this Association has carried on or financed on the subject of botulism will bear this out, it is the economic and commercial aspect of this question in which we assume you would be particularly interested and which we wish to bring to your attention. The continued occurrence of such outbreaks from home-canned foods is having a serious effect upon the canning industry and indirectly upon the growers and producers of agricultural products for canning.

By the recent outbreaks referred to above, all canned foods have been placed under suspicion which it will take a long time to eradicate.

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The story of the Albany outbreak has been published all over this country and a picture showing the twelve coffins of the victims, copy of which is attached, has been very widely distributed and published with a statement indicating that these deaths were due to canned beans, no distinction being made in the statement between the commercial and home canned product.

To quote from Bulletin No. 127 of the U.S. Public Health Service - "From the numerous sensational statements issued in the daily press, the medical journals, and the popular magazines, one could conclude that spoilage due to B. botulinus is a common every day condition of preserved vegetables and fruits. In fact the impression is being disseminated that certain food products, particularly ripe olives and spinach, are especially liable to be contaminated with the poison, no differentiation being made between home and factory canned products. Botulism can be prevented, provided the public is fully acquainted with the facts. In this connection, it is advisable not only to point out the sources and the character of the danger, but also to restore confidence in the use of canned foods. The data at the disposal of the commission are excellently suited for the purpose, and this chapter is not written to incriminate or to exculpate any particular product, but simply for the purpose of segregating and placing on record all the facts."

While one of the latest, if not the latest, bulletin published by your Department on the subject of home canning, Farmers Bulletin No. 1211, generally advocates much safer cooks or processes than were published in earlier bulletins, certain of the cooks recommended are still inadequate. The processes given in the earlier bulletins are even more open to criticism.

The following table gives some continuous processes suggested in Farmers Bulletin No. 1211, as compared with cooks necessary to kill B. Botulinus.

Product.	Cooks in Farmers Bulletin No. 1211	Cooks necessary to kill B. Botulinus*	
		Based on heating curves of Hagoon and Culpepper	Based on heating curves of Research Laboratory Nat'l Cannery Assn.
String beans, No. 2 can	180 min. at 212°	370 min. at 212°	370 min. at 212°
Corn (fruit jar)	180-360 min. at 212°	400 min. at 212°
Spinach (No. 2 can) or greens	180 min. at 212°	400 min. at 212°
Asparagus (pint jar)	180 min. at 212°	380 min. at 212°
Peas (No. 2 can)	180 min. at 212°	370 min. at 212°	370 min. at 212°
Lima beans	180 min. at 212°	375 min. at 212°
Sweet potatoes (No. 2 or 3 can)	180-300 min. at 212°	440 min. for #2 can 500 min. for #3 can at 212°	439 min. for #2 can 470 min. for #3 can at 212°

*Calculations are based on thermal death point studies of B. Botulinus by the Botulinus Commission. The thermal death time curve used is a straight line on semi-logarithmic paper drawn through the points 360 min. at 100° C. and 36 min. at 110° C.

Asparagus - On page 48 of Farmers Bulletin No. 1211, it is directed that asparagus in pint jars be processed intermittently for three periods of one hour each or continuously for three hours in boiling water. This does not take into account the variation in the temperature of boiling water at different altitudes. If they should be processed three hours in boiling water at sea level, more than twice that process should be used at altitudes at which a considerable amount of home canning is done. However, the process for three hours in boiling water is only half

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enough to destroy the most resistant spores of B. Botulinus even at sea level, according to the data of the Botulinus Commission. On the other hand, on page 49 it is directed that at 10 pounds of pressure (240 degrees F.) asparagus be processed for from 30 to 40 minutes. A 30 minute cook is long enough at that temperature for No. 2 cans but probably a 40 minute cook should be used for glass; thus it is seen that the cook recommended in the bulletin at 240 degrees is at least twice that recommended in boiling water.

Corn - On page 48, it is directed that corn be processed in boiling water for from ³5 to 6 hours. Obviously it is not right to give this range of process. The reader would be justified in assuming that 3 hours would be sufficient, hence why give 6 hours? As a matter of fact, 6 hours is hardly sufficient. On page 49 a cook of 90 minutes is directed at 240 degrees, which has probably one half greater sterilizing value than 6 hours in boiling water at sea level. At 250 degrees a cook of from 60 to 90 minutes is specified. Only one figure should be given. If 90 minutes is required for 240 degrees (and this is satisfactory for No. 2 corn in tin), the cook at 250 degrees should be 70 minutes.

String beans - On page 48 a process of 3 hours in boiling water is advised, while on page 49 a cook of from 40 to 50 minutes at 240 degrees is recommended. In No. 2 cans a cook of 20 minutes at 240 degrees is adequate, whereas in glass jars of the same size the cook should be 30 minutes. This is comparable with a cook of more than 6 hours in boiling water at sea level.

The canning industry is very much aroused over the situation and feels that it is time that something is done by Federal and State agencies, who have for many years carried on a vigorous campaign to promote home canning. Housewives and teachers of home economics and domestic science should be advised of the danger of the "cold-pack" method, and of "processing" certain foods at the temperature of boiling water and all literature sent out on the subject of home canning should be in harmony with the results of recent research.

Inasmuch as the older bulletins are doubtless still in the hands of many, who are using the unsafe methods described therein, should not the Department also make some public announcement which will go a long way toward putting home canning on a safe basis?

I appreciate the fact that the canning industry, in bringing this matter before you, will probably be charged with attempting to prevent and discourage home canning. It is for that very reason that the Association has been perhaps too slow in taking action. In spite of this anticipated, but unjust criticism, the situation is now so serious from the standpoint of public health as well as from the standpoint of the canner of foods, that the National Cannery Association has decided to present the matter to you fully and frankly. We know that you will carefully consider the important question involved and take such action as you believe is proper to safeguard the health of the public, and at the same time to promote the welfare of the agricultural interests of this country.

Yours truly,

(Signed)

FRANK E. GORRELL

Secretary.

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